

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A ~~processor implemented~~ computer-implemented method ~~of for~~ for encrypting and decrypting an original string that is storable in a database, the method comprising:

~~selectively defining a set of factors that represents factors to be used for~~
encrypting ~~an~~ the original string;

using defining an encryption equation ~~that maps to map~~ the original string to an encrypted string, the encryption equation being a function of the original string and the set of factors;

~~selectively defining a set of derivatives relating to the factors, wherein the set of derivatives contains a plurality of false derivatives that are not used to decrypt the encrypted strings;~~

using selectively defining a set of derivative equations to respectively generate a corresponding first derivative value from the set of factors; ~~that represents relationships between the factors and the derivatives to introduce a predetermined degree of randomness in encrypting the original string;~~

storing the encrypted string and each first derivative value in the database;

additionally storing a false derivative value in the database, the false derivative value not being used to determine a given factor from the set of factors during decryption of the stored encrypted string;

~~using determining a set of factor decryption equation that maps equations to map~~
~~each of the derivatives first derivative values stored in the database to a corresponding~~
~~factor in the set of factors; and~~

~~decrypting the original encrypted string stored in the database using the derivative~~
~~equations a decryption equation and the factors each factor mapped through the set of~~
~~factor decryption equations to generate a decrypted string that is equal to the original~~
~~string; and~~

~~presenting the decrypting original string for processing.~~

2. (Previously Presented) The method of claim 1, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from events.
3. (Previously Presented) The method of claim 1, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from values provided by equations.
4. (Currently Amended) The method of claim 1, wherein the set of derivative equations comprise mathematical functions that are defined in terms of the set of factors.
5. (Currently Amended) The method of claim 1, wherein ~~the a~~ number of derivative equations in the set of derivative equations is at least equal to ~~the a~~ number of factors in the set of factors.

6. (Original) The method of claim 1, wherein the original string is comprised of characters.

7-8. (Cancelled)

9. (Currently Amended) The method of claim 8, ~~further comprising determining a~~
~~wherein the~~ decryption equation as ~~is~~ a mathematical function of ~~an encrypted string in~~
the encrypted string and ~~each of the plurality of mapped factors~~ mapped through the set
of factor decryption equations.

10-12. (Cancelled)

13. (Currently Amended) The method of claim 1, wherein ~~selectively~~ defining the set
of factors comprises defining at least one factor.

14. (Currently Amended) The method of claim 1, wherein ~~selectively defining~~ the set
of derivative equations comprises ~~defining~~ at least one derivative equation.

15. (Currently Amended) A ~~processor-implemented~~ system for encrypting and
decrypting an original string, the system comprising:
a processor; and

a memory in communication with the processor, the memory storing a plurality of instructions that are executable by the processor, the plurality of instructions comprising instructions to implement,

an encryption module configured to

receive user input defining an implementer selectively defines a set of factors ~~that represents factors~~ to be used for encrypting the original string;

receive user input ~~an encryption module~~ defining an encryption equation that maps the original string to an encrypted string, the encryption equation being a function of the original string and the set of factors; and

~~the encryption module selectively defining a set of derivatives relating to the factors, wherein the set of stored derivatives contains a plurality of false derivatives that are not used to decrypt the encrypted string;~~

receive user input ~~the implementer~~ further selectively defining a set of derivative equations, each derivative equation to generate a corresponding first derivative value from the set of factors; ~~that represents relationships between the factors and the derivatives to introduce a predetermined degree of randomness in encrypting the original string;~~

a database configured to store the encrypted string, each first derivative value, and a false derivative value, wherein the false derivative value not being

used to determine a given factor from the set of factors during decryption of the stored encrypted string; and

a decryption module configured to

use the implementer further determining a set of factor decryption equation that maps equations to map each of the derivatives first derivative values stored in the database to a corresponding factor in the set of factors; and

decrypt a decryption module decrypting the original encrypted string stored in the database using the derivative equations a decryption equation and the factors each factor mapped through the set of factor decryption equations to generate a decrypted string that is equal to the original string, and for presenting the decrypting original string for processing.

16. (Previously Presented) The system of claim 15, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from events.

17. (Previously Presented) The system of claim 15, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from values provided by equations.

18. A computer ~~readable medium encoded with a computer program product having a~~ plurality of executable instruction codes ~~stored on a computer readable storage medium,~~ for encrypting and decrypting an original string that is storable in a database, the computer program comprising computer executable code for:

~~defining a set of instruction codes that represents~~ factors to be used for encrypting the original string;

~~using a set of instruction codes that defines~~ an encryption equation for ~~transforming to map~~ the original string to an encrypted string, the encryption equation being a function of the original string and the set of factors;

~~using a set of instruction codes that defines~~ a set of derivative equations to respectively generate a corresponding first derivative value from the set of factors; ~~representing relationships between the factors and the derivatives and that introduce a predetermined degree of randomness in encrypting the original string;~~

storing the encrypted string and each first derivative value in the database;

additionally storing a false derivative value in the database, the false derivative value not being used to determine a given factor from the set of factors during decryption of the stored encrypted string;

using a set of factor decryption equations to map each of the first derivative values stored in the database to a corresponding factor in the set of factors; and

~~a set of instruction codes for decrypting the original encrypted string stored in the database using the derivative equations~~ a decryption equation and the factors each factor mapped through the set of factor decryption equations to generate a decrypted string that is equal to the original string; and

~~a set of instruction codes for presenting the decrypting original string for processing.~~

19. (Previously Presented) The computer program product of claim 18, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from events.

20. (Previously Presented) The computer program product of claim 18, wherein the set of factors comprises at least one of: constant values, numbers, objects, and random values that are derived from values provided by equations.